

What is claimed is:

- 1 1. The method of transferring programs and data to a portable programmable data processing device from a host computer comprising, in combination, the steps of:
 - 2 placing said host computer at location accessible to a user transporting said portable computing device,
 - 3 accepting an installation command from said user at said host computer when said user and said portable data processing device are near said host computer
 - 4 executing a program at said host computer in response to said installation command to establish a short range bi-directional communications link between said host computer and said portable data processing device and to download a communications program from said remote computer to said portable data processing device via said short range communications link,
 - 5 executing said communications program on said remote data processing device to transfer one or more specified files from said host computer to said portable data processing device.
- 6 2. The method set forth in claim 1 wherein said step of accepting an installation command comprises using an actuator at said host computer manually operable by said user.
- 7 3. The method as set forth in claim 1 wherein said one or more specified files include an application program executable by said portable computing device.
- 8 4. The method as set forth in claim 3 further including the step of automatically executing said application program on said portable computer device after it is transferred.
- 9 5. The method as set forth in claim 1 wherein said short-range bidirectional communications link is an infrared communications link
- 10 6. The method as set forth in claim 5 wherein said infrared communications link operates in accordance with the IrDA Protocol.

1 7. The method as set forth in claim 6 wherein said one or more specified files are
2 transferred from said host computer to said portable computing device using the IrDA Object
3 Exchange Protocol.

1 8. The method of claim 1 wherein said short-range bi-directional communications link is an
2 ultra high frequency radio link.

1 9. The method of claim 8 wherein said short-range bi-directional communications link
2 operates in accordance with the Bluetooth Specification.

1 10. The method as set forth in claim 1 further comprising establishing longer range
2 communications link for transferring programs and data between one or more remote computers
3 and said portable computing device via said host computer.

1 11. The method as set forth in claim 8 wherein said longer range communications link is a
2 network connection to a server, which stores programs and data for use by said portable computing
3 device.

1 12. The method as set forth in claim 11 wherein said network connection is a wireless
2 network connection.

1 13. to user request for executing said application program on said portable computing

2 device to prov Apparatus for providing information and data processing services to a mobile user
3 which comprises, in combination,

4 a portable programmable computing device carried by said user,

5 a host computer positioned at a location accessible to said user,

6 a short range communication link coupling said portable computing device to said host

7 computer,

8 means operable by said user when said portable computing device is near said host
9 computer for causing said host computer to download a communications program via said short
10 range communication link to said portable communications device,
11 means for initiating the execution of said communications program on said remote
12 computing device after said download to transfer an applications program from said host computer
13 to said portable computing device, and
14 means for initiating the execution of said applications program to provide said information
15 and data processing services to said mobile user.

1 14. Apparatus as set forth in claim 13 wherein said means for causing said host computer to
2 download said communications program comprises an actuator at said host computer manually
3 operable by said user when said user and said portable computing device are near said host
4 computer.

1 15. Apparatus as set forth in claim 13 wherein said short range communications link is a bi-
2 directional infrared communications link.

1 16. Apparatus as set forth in claim 15 wherein said bi-directional infrared communications
2 link operates in accordance with the IrDA Protocol.

1 17. Apparatus as set forth in claim 16, wherein said applications program is transferred
2 from said host computer to said portable computing device using the IrDA Object Exchange
3 Protocol.

1 18. Apparatus as set forth in claim 13, wherein said short-range bi-directional
2 communications link is an ultra high frequency radio link.

1 19. Apparatus as set forth in claim 18, wherein said short-range bi-directional
2 communications link operates in accordance with the Bluetooth Specification.

1 20. Apparatus as set forth in claim 13, further comprising a longer range communications
2 link for transferring programs and data between one or more remote computers and said portable
3 computing device via said host computer.

1 21. Apparatus as set forth in claim 20 further comprising a server for storing programs
2 and/or data for use by said portable computing device, said server being connected to said portable
3 communications device via said longer range communications link, said host computer, and said
4 short range communications link.

1 22. Apparatus as set forth in claim 21, wherein said longer-range communications link is a
2 local area network.

1 23. A communications bridge for establishing a bi-directional communications link
2 between a portable computing device carried by a user and a remote computer, said bridge being
3 positioned at a location accessible to said user and comprising, in combination,
4 a first transceiver for establishing a short range bi-directional communications link to said
5 portable computing device when said portable computing device is carried near to said bridge by
6 said user,
7 a second transceiver for establishing a longer range bi-directional communications link to
8 said remote computer,
9 an actuator manually operable by said user,
10 a processor connected to said first transceiver and responsive to the operation of said
11 actuator by said user when said user and said portable computing device are near to said bridge for
12 downloading a communications program executable by said portable computing device and for
13 thereafter controlling said first and said second transceivers to establish said communications link.

1 24. A communications bridge as set forth in claim 23 wherein said short-range
2 communications link is an bi-directional infrared communications link.

1 25. A communications bridge as set forth in claim 23 wherein said bi-directional infrared
2 communications link operates in accordance with the IrDA Protocol.

1 26. A communications bridge as set forth in claim 23, wherein said short-range bi-
2 directional communications link is an ultra high frequency radio link.

1 27. A communications bridge as set forth in claim 26, wherein said short-range
2 bidirectional communications link operates in accordance with the Bluetooth Specification.

1 28. A communications bridge as set forth in claim 24 further including a third transceiver
2 for establishing a short range bi-directional ultrahigh frequency radio communications link with a
3 portable computing device.

1 29. A communications bridge as set forth in claim 28, wherein said bi-directional infrared
2 communications link operates in accordance with the IrDA Protocol and wherein said short range
3 bi-directional ultrahigh frequency radio communications link operates in accordance with the
4 Bluetooth Specification.

1 30. An interactive publicly viewable display for attracting the attention of and providing
2 data services to a user transporting a portable computing device into the vicinity of said interactive
3 display, said interactive display comprising, in combination,
4 means for visually exhibiting displayed information to said user,
5 a transceiver for providing a short range communication link between said interactive
6 display and said portable computing device, and
7 a processor coupled to said portable computing device via said transceiver for providing
8 said data services.

1 31. An interactive display as set forth in claim 30 further comprising:
2 an actuator manually operable by said user, and
3 means responsive to the operation of said actuator by said user when said user and said
4 portable computing device are near said interactive display for downloading a communications

1 program executable by said portable computing device for exchanging information with said
2 interactive display.

1 32. An interactive display as set forth in claim 30 wherein said short-range communications
2 link is a bi-directional infrared communications link.

1 33. An interactive display as set forth in claim 32 wherein said bi-directional infrared
2 communications link operates in accordance with the IrDA Link Access Protocol.

1 34. An interactive display as set forth in claim 30 wherein said short-range bi-directional
2 communications link is an ultra high frequency radio link.

1 35. An as set forth in claim 34 wherein said short range bi-directional communications
2 link operates in accordance with the Bluetooth Specification.

1 36. An interactive display as set forth in claim 30 further comprising a second transceiver
2 for establishing a longer range bi-directional communications link to a remote computer and means
3 for utilizing said first and said second transceivers for transmit data between said portable
4 computing device and said remote computer.

1 37. An interactive display as set forth in claim 36 wherein said data services include email
2 services and wherein said remote computer operates as an email server connected to the Internet.

1 38. An interactive display as set forth in claim 36 wherein said data services include file
2 transfer services and wherein said remote computer operates as a file server.

1 39. An interactive display as set forth in claim 36 wherein said data services include file
2 synchronization services for transferring data between said remote computer and said portable
3 computing device to maintain equivalent content in like files locally stored at both said portable
4 computing device and at said remote computer.